Claims

What is claimed is:

1. A system for ranking items in a selectable information list received from an information delivery system, comprising;

a database system adapted to log selections of information viewed by a user of the information delivery system and log temporal history corresponding to the viewing of the selected information; and

a collaborative filtering system adapted to be trained employing the logged temporal history corresponding to the viewing of the selected information from a plurality of systems.

2. The system of claim 1, wherein a selection is logged if the selection is viewed for a dwell time that exceeds a predetermined threshold.

3. The system of claim 2, wherein the collaborative filtering system assigns a positive vote to logged selections that are viewed for a dwell time that exceeds a predetermined threshold.

4. The system of claim 1, wherein a selection is logged if the selection is briefly viewed and jumped away to another selection.

5. The system of claim 4, wherein the collaborative filtering system assigns a negative vote to logged selections that are viewed briefly and jumped away to another selection.

6. The system of claim 1, the viewed information being time stamped by event type and the collaborative filtering system being based on a single collaborative filtering model adapted to be trained according to time intervals that the information has been viewed.

7. The system of claim 1, the collaborative filtering system being based on a plurality of separate collaborative filtering models, each collaborative filtering model being trained with the information from a particular time interval of temporal history that has been viewed.

8. The system of claim 1, the viewed information being time stamped by event occurrence and the collaborative filtering system being based on a single collaborative filtering model adapted to be trained according to time intervals that the information has been viewed.

9. The system of claim 1, the collaborative filtering system being adapted to provide in real-time a selectable recommendation list ordered by estimated degree of preference that a user has for each item.

10. The system of claim 9, the collaborative filtering system being adapted to receive attributes of at least one user of the system and utilize these attributes in providing the selectable recommendation list.

11. The system of claim 10, the collaborative filtering system being further adapted to receive attributes of other systems and utilize these attributes in providing a globally ranked recommendation list to a cluster of systems based on the temporal viewing history of the systems of the cluster.

12. The system of claim 9, the collaborative filtering system being further adapted to receive a previously viewed item list that has been filtered by a filtering system and generate a new recommendation according to the preferences provided by the filtered previously viewed item list.

13. The system of claim 12, the filtering system comprising at least one of a live show selection filter, a time period filter and a popularity filter, a pattern search engine and an adding items of interest and update component.

14. The system of claim 1, further comprising a user interface operable to allow a user to provide at least one filter to a reviewed items list.

15. The system of claim 14, the user interface being further operable to allow a user to request a time period for reviewing information from the selectable recommendation list wherein the collaborative filtering system supplies the selections for the time period requested based on the temporal history of selections within a similar time interval covering the time period.

16. The system of claim 14, the user interface being further operable to receive a reviewed items list, allow a user to modify the reviewed items list, and input the modified reviewed items list as updated preferences into the collaborative filtering system, such that a new recommendation list can be generated based on the updated preferences.

17. The system of claim 1, the information being multimedia.

18. A multimedia system adapted to rank programs in an electronic program guide list received from a program delivery system, comprising;

a database system adapted to log selections of programs viewed by a user utilizing a program delivery system and log temporal history corresponding to the viewing of the selected programs; and

a collaborative filtering system adapted to be trained employing the logged temporal history corresponding to the viewing of the selected programs from a plurality of systems.

19. The system of claim 18, wherein a selected program is logged if the selected

program is viewed for a dwell time that exceeds a predetermined threshold.

20. The system of claim 19, wherein the collaborative filtering system assigns a positive vote to logged selected programs that are viewed for a dwell time that exceeds a predetermined threshold.

21. The system of claim 18, wherein a selection is logged if the selected program is briefly viewed and jumped away to another program.

22. The system of claim 19, wherein the collaborative filtering system assigns a negative vote to logged selected programs that are viewed briefly and jumped away to another program.

23. The system of claim 18, the collaborative filtering system being adapted to provide in real-time a selectable recommendation list of programs ordered by estimated degree of preference that a user has for each item.

24. The system of claim 23, the collaborative filtering system being further adapted to receive further attributes of at least one user of the system and utilize these attributes in ranking the selectable recommendation list of programs.

25. The system of claim 23, the collaborative filtering system being further adapted to receive attributes of other systems and utilize these attributes in providing a globally ranked electronic program guide list to a cluster of systems based on the temporal viewing history of the systems of the cluster.

26. The system of claim 23, the collaborative filtering system being further adapted to receive a reviewed item list that has been filtered by a filtering system and generate a new selectable recommendation list of programs according to the preferences

provided by the filtered reviewed item list.

27. The system of claim 26, the filtering system comprising at least one of a live show selection filter, a time period filter and a popularity filter, a pattern search engine and an adding items of interest and update component.

28. The system of claim 23, further comprising a user interface operable to allow a user to provide at least one filter to a reviewed items list of previously viewed programs.

29. The system of claim 28, the user interface being further operable to allow a user to request a time period for reviewing programs from the selectable recommendation list wherein the collaborative filtering system supplies the selections for the time period requested based on the temporal history of selections within a similar time interval covering the time period.

30. The system of claim 28, the user interface being further operable to receive the reviewed items list, allow a user to modify the reviewed items list, and input the modified reviewed items list as updated preferences into the collaborative filtering system, such that a new recommendation list can be generated based on the updated preferences.

31. The system of claim 18, the multimedia system residing on a television set top box.

32. The system of claim 18, the multimedia system residing on a remote server coupled to at least one set top box wherein recommendations are generated by the server and transmitted to the set top box.

33. The system of claim 32, the set top box having an electronic program guide system adapted to receive and display the recommendations to a user.

34. The system of claim 26, the remote server further comprising a global inference system adapted to group multimedia systems into clusters and a set of general recommendations for members of at least one cluster based on the temporal viewing habits of members of the cluster.

35. A method for ranking recommendations of items of information in a selectable information list received from an information delivery system, comprising;

logging titles of viewed information and temporal history corresponding to the viewed information in a database;

training a collaborative filtering system using the logged temporal history of the viewed information; and

providing a selectable recommendation list ordered by estimated degree of preference that a user has for each item from the trained collaborative filtering system.

36. The method of claim 35, wherein a selected title is logged if the selected program is viewed for a dwell time that exceeds a predetermined threshold.

37. The method of claim 36, further comprising assigning a positive vote to logged selected titles that are viewed for a dwell time that exceeds a predetermined threshold.

38. The method of claim 35, wherein a selection is logged if the selected program is briefly viewed and jumped away to another program.

39. The system of claim 38, further comprising assigning a negative vote to logged selected programs that are viewed briefly and jumped away to another program.

40. The method of claim 35, the step of logging titles of viewed information and temporal history corresponding to the viewed information in a database comprising time

stamping the titles of the viewed information according to event type and the collaborative filtering system comprising a single collaborative filtering model adapted to be trained based on time intervals that the information has been viewed.

41. The method of claim 35, the step of training the collaborative filtering system comprising utilizing a plurality of separate collaborative filtering models, each collaborative filtering model being trained with the information from a particular time interval of temporal history that has been viewed.

42. The method of claim 35, the step of logging titles of viewed information and temporal history corresponding to the viewed information in a database comprising time stamping the titles of the viewed information according to event occurrence and the collaborative filtering system comprising a single collaborative filtering model adapted to be trained based on time intervals that the information has been viewed.

43. The method of claim 35, further comprising utilizing other attributes of the viewer of the viewed information in the step of providing a selectable recommendation list ordered by estimated degree of preference that a user has for each item.

44. The method of claim 35, the step of providing a selectable recommendation list ordered by estimated degree of preference that a user has for each item comprising providing a globally ranked selection list to a cluster of systems based on the temporal viewing history of the other viewing systems of the cluster.

45. The method of claim 35, further comprising filtering a reviewed items list, inputting the filtered reviewed items list into the trained collaborative filtering system and generating a new selectable recommendation list of titles according to the preferences provided by the filtered reviewed items list.

46. The method of claim 45, the step of filtering comprising applying at least one of a live show selection filter, a time period filter, a popularity filter, a pattern search engine and an adding items of interest and update component to the reviewed items list.

47. The method of claim 35, the information being multimedia programs and the viewing system being a television wherein the selectable recommendation list is provided in an electronic program guide.

48. A system for ranking recommendations of items of information in a selectable information list received from an information delivery system, comprising;

means for logging titles of viewed information and temporal history corresponding to the viewed information in a database;

means for retrieving the logged titles and temporal history corresponding to the viewed information from the database;

means for employing collaborative filtering techniques on the temporal history of the viewed information and a selection list of available titles to order a recommendation list by estimated degree of preference that a user has for each item; and

means for providing the recommendation list to the user of a viewing system.

49. The system of claim 48, the means for employing collaborative filtering techniques further comprising means for utilizing other attributes of the user of the viewed information.

50. The system of claim 48, the means for employing collaborative filtering techniques further comprising means for utilizing attributes of other viewing systems and means for providing a globally ranked selection list to a cluster of systems based on the temporal viewing history of the other viewing systems of the cluster.

51. The system of claim 48, further comprising means for filtering a reviewed item list, the filtered reviewed items list being a preference input into the means for employing collaborative filtering techniques.

52. The system of claim 48, the information being multimedia programs and the viewing system being a television wherein the ranked selectable list is provided in an electronic program guide.